

2. Approach

2005 Profile

To oversee the development of the Epidemiology Profile and its findings, a Substance Abuse Epidemiology Work Group was formed. Members include grant partner agencies, representatives of agencies with key data sets, public health experts and epidemiologists, community representatives, and the State Incentive Grant's evaluator. The Work Group was convened and staffed by the Governor's Office.

For the original (2005) Epidemiology Profile, eight meetings were conducted over a ten-month period in which Work Group members decided on how to approach the Profile, decided on problem areas to be examined, selected indicators of substance abuse consequences and consumption, advised on data sets and analysis, and reviewed findings. The Arizona Department of Health Services and the Arizona Criminal Justice Commission provided geographic and other analyses of key data sets to support the group's work.

The work was conducted in two phases. First, an exhaustive list of potential indicators of substance use consequence and consumption patterns was developed. Consequence and consumption indicators were compiled from an indicator database developed by the Substance Abuse and Mental Health Services Administration, a list of indicators compiled from other State Incentive Grant awardees, and indicators suggested by members of the Substance Abuse Epidemiology Work Group. A search was conducted for data sets that could provide information on the indicators or data sets that were related to substance abuse and might provide additional indicators.

From the beginning, it was tacitly assumed that indicators that would eventually be used would have data that were reliable, regularly collected, and readily accessible. The data would be of sufficient quality to allow relatively certain conclusions to be reached. The data would also be constantly updated, usually on a yearly basis, or on a biennial basis. Further, the data needed to have a good chance of being collected into the near future or at least over the five year life of the State Incentive Grant. It was also agreed that data would be available either in published reports, on agency web sites, or through communication with the data set manager. Data used for this Epidemiology Profile were archival or existed in surveys already completed; no primary research was done to inform the report. A complete list of all the indicators considered is provided in Appendix A.

The relationship between substance use and other health or social problems has been recognized in the public health field. However, while the literature suggests correlations between substance use and other health and social problems, with the exception of smoking-attributable mortality, morbidity and economic costs, the proportion of these problems directly attributable to substance abuse in Arizona, also known as attributable fractions, was not readily quantifiable or available from existing sources. Two of the concerns with attributable-fractions influenced the decision to look only at indicators with a direct relationship to substance use. First, while some studies measure the effect of substance abuse on chronic illness and social problems, such effects may not be seen for many years or even decades, making it difficult to measure the effects of the State Incentive Grant's intervention efforts. Second, several of the public health experts and epidemiologist members of the Work Group questioned the methods that some of these studies used to calculate the proportion of a given problem that could be attributed to substance use.

It should be noted that beginning with a search of indicators to describe substance abuse consequences and consumption patterns defines substance use problems in a particular way. This approach means that problems are determined by the presence of data, as opposed to starting with a community concern and then finding data to inform the extent of the concern. This approach may be problematic in that only those consequences and patterns for which data exist are included in the analysis. This approach also narrowly restricts a problem or problem syndrome, such as drinking and driving, to a specific indicator or set of indicators, such as arrests for driving under the influence of alcohol.

The second phase of the work consisted of analyzing available indicator data in order to interpret it for the purposes of the State Incentive Grant. This analysis was to be used to expose substance abuse consequence and consumption patterns and the populations implicated by them. Once problem areas were identified, State Incentive Grant funds would be allocated to interventions designed to remedy these problems. Data from the first phase of the process were reviewed and a problem area identification exercise was conducted to specify those problem areas that the Substance Abuse Epidemiology Work Group considered priority. Once these preliminary problem areas were noted, the data were reviewed and analyzed again to specifically inform decisions that would be made for allocating State Incentive Grant funds.

With the exception of death or illness, not included in the analyses were data on the severity of an indicator or problem or its effect on an individual or society such as economic costs or productivity losses. This is a weakness since such data might influence priority setting if, for example, a drug has a low consumption rate relative to other drugs but its economic costs far exceed those of drugs that have higher consumption rates.

Several indicators were important to the group:

- Past-month underage drinking
- Past-month underage binge drinking
- Past two-week binge drinking among youth in 8th, 10th, and 12th grades
- Past-month binge drinking for those 12 and older
- Lifetime youth alcohol use
- Alcohol-related motor vehicle injuries
- Alcohol-related motor vehicle fatalities
- Arrests for driving under the influence (DUI)
- Past-year clinical dependence on, or abuse of, illicit drugs and alcohol
- Past-month underage illicit drug use
- Lifetime underage illicit drug use
- Past-month adult illicit drug use

2007 Profile

The 2007 Epidemiology Profile differs from its 2005 counterpart in several noteworthy ways. First, the current profile includes several additional indicators of substance use. Specifically, measures of tobacco-related mortality and morbidity are added to the measures of tobacco use. Secondly, in addition to age and geography, where this information is available, the 2007 profile indicates differential consequences and/or consumption patterns by gender and racial/ethnic category. Further, given increasing attention in the media and elsewhere to methamphetamine use, the 2007 Epidemiology Profile expands upon the 2005 report in that it pays special attention to such use in Arizona by adults and youth in an effort to explain more thoroughly this particular substance use concern. Finally, the 2007 profile utilizes the most current data pertaining to the substance use indicators of interest to the Substance Abuse Epidemiology Work Group.

As they were in the 2005 Epidemiology Profile, data are presented in absolute numbers and rates (when rates were available or when denominators were known for rate calculation). Absolute numbers provide a sense of the number of people that are affected by substance use and give insight into the magnitude of the problem. Rates suggest whether a particular population is disproportionately affected and therefore, more in need of attention. Affected populations were defined and analyzed by geography, age, gender, and racial/ethnic category at the county or sub-county level when these data were available.

In addition to presenting data on the indicators of substance abuse consequence and consumption patterns, this report attempts to provide an overview of the effects of substance use in the state, including an interpretation of the data for the specific purposes of the State Incentive Grant. The Work Group's key findings are highlighted and interspersed throughout the Epidemiology Profile.

In order to make the data in this report readily available, data sources are identified in table footnotes. The reference section at the end of this report is a compilation of all data sources used, including the report or data set from which the information is derived, the date of the report, and the agency that authored the report or maintains the data. In addition, a brief description of each data set or report utilized, including the website where the data or report can be accessed, is appended to this Epidemiology Report (see Appendix B).